

# The Anchorage Amateur Radio Club News Bulletin

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Volume 26 No. 10

October 1997

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**General Meeting  
October 3rd**

**Brief Introductions and**

**Comments From**

**Students at APU**

**Who Have Received**

**Scholarships Made Available**

**By The**

**Anchorage Amateur Radio Club**

AARC Website

<http://nl7nc.akconnect.com/aarc.htm>

**What's Up?**

General Meeting First Friday of Month - Carr-Gottstein Bldg APU Campus 7 pm  
Second Bldg on the left. Room 102

Board Meeting - Second Wednesday 7 pm - Grant Hall APU Room 150

VEC Testing - 1st Wed 6:30 pm, Carr-Gottstein Bldg.; 2nd Saturday, 2 pm Hope  
Cottage - 530 W. International Airport Road. Enter rear of Bldg.

3rd Wednesday, VFW Hall -Eagle River 7 pm

No appointment needed. Bring copies of previous Testing. Bring Photo ID

Second Friday SCRC General Meeting 7 pm Room 220 Bus Ed Bldg UAA



## Why All the Harping About HAARP?

Submitted by Ned Rozell

*This column is provided as a public service by the Geophysical Institute, University of Alaska Fairbanks, in cooperation with the UAF research community. Ned Rozell, a science writer at the institute, will be hiking the trans-Alaska pipeline this summer to commemorate the 20th anniversary of the Alaska Science Forum and the pipeline.*

There are a lot of things I miss about working inside the Geophysical Institute this time of year, but one void in my work routine is that I'm missing calls about HAARP on the Geophysical Institute's information line.

I referred most of the calls about HAARP, the High-frequency Active Auroral Research Program, to John Heckscher, the HAARP program manager at Hanscom Air Force Base in Massachusetts. Before I began the pipeline hike, I gave Heckscher a call to learn more about the controversial project, which is located near Gakona about 11 miles from the Richardson Highway on the Tok cut-off road.

As of this summer, HAARP consists of high-frequency transmitters that send signals from 48 antennas on top of 72-foot posts. The antenna field covers about five acres. When completed, HAARP will be expanded to 180 antennas and 33 acres no earlier than the year 2002.

The purpose of HAARP is not to control weather or brain functions, Heckscher said. HAARP is a tool researchers can use to heat a patch of the ionosphere to make it act like

a giant antenna.

The ionosphere is a layer of Earth's atmosphere that exists from about 50 miles above the ground to 500 miles out. Home to the Aurora Borealis, the ionosphere contains both positively and negatively charged atomic particles called ions and electrons.

When HAARP is activated, the antennas simultaneously transmit high-frequency radio waves in a narrow beam. Aimed by the alignment of the antennas, the radio waves travel upward and reach the ionosphere in a roughly circular pattern that can cover 6 to 12 miles.

With this beam of high-frequency radiation, researchers can change a small portion of the electrojet—the natural currents along the auroral curtain of about one million amperes. By changing the intensity of the electrojet, researchers are able to use the ionosphere to create extremely low-frequency (ELF) radio waves.

Geophysical Institute Director Syun Akasofu says that without a device such as HAARP, an antenna hundreds of miles long would be needed to broadcast in this frequency range. HAARP can effectively turn the aurora into such an antenna.

Because ELF radio waves can penetrate into the ocean, submarines won't have to climb to the surface to receive radio signals. ELF waves also can propagate around Earth, making long-distance communication easy.

ELF signals deeply penetrate into Earth as well as ocean, a characteristic with other possible applications. By using a receiver to

monitor the waves as they bounce back from objects below Earth's surface, it may be possible to tell if tunnels or hidden underground storage areas exist in enemy territory. This is the same technique geologists have used for many years to explore for underground mineral and oil deposits.

Is HAARP dangerous? Well, HAARP signals are one million times less dangerous than government-approved safety levels for any electrical signal. HAARP's transmitter currently has a power of 1/3 megawatt, which might be boosted to 3 megawatts in a few years, Heckscher said.

He compared HAARP's effect on the vast ionosphere to the warming that would be experienced by the whole Copper River if you dipped in a small electric coil of the type

used to warm one single cup of coffee. This is why Akasofu describes rumors he's heard circulating about HAARP as dangerous to people or the environment as pure science fiction.

HAARP could present a potential danger to electronic equipment in aircraft that is flying overhead when the transmitter is turned on, but there are safety precautions against that. HAARP operators notify the Federal Aviation Administration with the HAARP transmission schedule and engineers are installing an aircraft-detection radar at HAARP to further ensure the safety of overflying aircraft. This same procedure is followed when rockets are launched from Poker Flat Research Range into the upper atmosphere.



### Notice

Fred Erickson/KL7VC is amassing a data base of Club Member's e-mail addresses. If you want to be in his list, e-mail him at "frederickson@iname.com". Benefits include receiving short notice bulletins that may need to get out between newsletters and club meeting

The only Genuine Operating Dutch Windmill in the United States. Located in Holland, Michigan. From my travels in the past month. Editor NL7DK



Anchorage Amateur Radio Club  
P.O. Box 101987  
Anchorage, Alaska 99510-1987

Aug 22, 1997


Dear Mr. Hansen,

We received the set of amateur radio books donated by the Anchorage Amateur Radio Club. Please express our great appreciation to all those involved in this wonderful donation.

Several people in the community have expressed an interest in amateur radio, so the books will be well used.

Again, thank you very much!

Sincerely,

  
Postmaster for Chicken  
Chicken community library

ALASKA REPEATERS:  
Updated 07-04-97

LIST SUPPLIED BY :  
MEL BOWNS KL7GG  
STAR ROUTE BOX 1599  
EAGLE RIVER, AK 99577

## LOCATION LEGEND:

AL - ALEUTIAN CHAIN  
IN - INTERIOR ALASKA  
SC - SOUTHCENTRAL ALASKA  
PA - SOUTHEASTERN ALASKA  
WE - WESTERN ALASKA

## REMARKS LEGEND:

A - AUTOPATCH  
A/R - ARES/RACES  
C - CLOSED PRIVATE REPEATER  
EU - EMERGENCY USE  
O - OPEN REPEATER, CARRIER ACCESS  
Y - RTTY/ASCII RADIOTELETYPE

CA - CLOSED AUTOPATCH  
ATV - AMATEUR FAST SCAN TV  
E - EMERGENCY POWER  
L - LINK OR CROSSBAND  
PL - CTCSS TONE SQUELCH ACCESS  
Z - DIRECT TIE TO SAFETY SRVS

GEO	LOCATION	INPUT	OUTPUT	CALL	NOTES
AL	KODIAK	146.16	146.76	KL7AF	O
AL	KODIAK	146.28	146.88	KL7HIX	O,A
IN	NORTH POLE	146.37	146.97	AL7AC	O,A
IN	DELTA JUNCTION	146.22	146.82	KL7KC	O
IN	DELTA JUNCT/FAI	144.88	144.88	KL7KC	O,L
IN	DOT LAKE	146.22	146.82	KL7KC	O,L
IN	FAIRBANKS	146.34	146.94	KL7KC	O,A
IN	FAIRBANKS	449.10	444.10	KL7HO	O
IN	FAIRBANKS	146.28	146.88	KL7KC	O,A,L PL 103.5
IN	FAIRBANKS	146.16	146.76	KL7B	O
IN	NORTHWAY	146.22	146.82	KL7KC	O,A,L PL 103.5
PA	ZAREMBO ISLAND	147.96	147.36	W6SJJ	O,L
PA	KETCHIKAN	146.19	146.79	KL7IEN	O,A
PA	SITKA	146.22	146.82	KL7FFR	O
PA	DUNCAN CANAL	147.96	147.36	AL7DS	O,L
PA	WARM SPRINGS BAY	222.34	223.94	KL7AM	O,L
PA	JUNEAU	449.50	444.50	W6AXO	O,REM BASE
PA	JUNEAU	147.96	147.36	W6SJJ	O,REM BASE
PA	JUNEAU	147.90	147.30	KL7TV	O,E,L,A/R
PA	JUNEAU	449.70	444.70	KL7RH	O,A,E,L,Z
PA	JUNEAU	146.22	146.82	KL7RH	O,A,E,L,Z
PA	JUNEAU	+/- .60	147.00	KL7HF1	O,L
PA	PETERSBURG	146.36	146.96	AL7AQ	O,A
PA	GUSTAVUS	146.36	146.96	KL7MJ	O
PA	HAIRIES	146.34	146.94	KL7CQP	O
PA	SITKA	147.90	147.30	KL7BCU	O,A
SC	MAT. VALLEY	144.89	145.49	AA0WH	O,L
SC	MAT. VALLEY	146.25	146.85	KL7JFU	O,A
SC	MAT. VALLEY	147.09	147.69	KL7DOB	O,A,SOLAR
SC	KENAI	146.28	146.88	KL7JDR	O,A,E
SC	HOMER	146.31	146.91	KL7TX	O,L
SC	VALDEZ	146.34	146.94	KL7GQ	O,A
SC	EAGLE RIVER	144.85	145.45	KL7GG	O,CA,E,Z
SC	EAGLE RIVER	449.10	444.10	KL7GG	O,A,E,Z
SC	ANCHORAGE	146.34	146.94	KL7AA	O,CA,E,L,Z PL 100.0
SC	ANCHORAGE	146.37	146.97	KL7CC	O,A,E,
SC	ANCHORAGE	147.78	147.18	KB5YJC	O,E,
SC	ANCHORAGE	147.82	147.22	KL7M	O,L
SC	ANCHORAGE	147.90	147.30	KL7IOW	O,E,A/R
SC	ANCHORAGE	147.39	147.99	KL7GG	O,E,A,Z,L
SC	ANCHORAGE	223.34	224.94	KL7AA	O,E
SC	ANCHORAGE	449.50	444.50	KL7GG	O,E,A,Z,L
SC	ANCHORAGE	449.70	444.70	KL7AA	O,A,Z PL 100.0
SC	ANCHORAGE	449.95	444.95	KL7M	O,L
SC	ALYESKA SKI RESORT	146.16	146.76	KL7AA	O,E
SC	SEWARD	146.16	146.76	KL7HP	O,L
SC	DILLINGHAM	146.34	146.94	KL7M	O,A
SC	VALDEZ	146.34	146.94	KL7GQ	O,Y
WE	NOME	147.69	147.09	AL7CE	O

CORRECTIONS AND ADDITIONS TO MEL BOWNS KL7GG IN WRITING.

ANCHORAGE AMATEUR RADIO CLUB, INC. - P.O. BOX 10-1987 - ANCHORAGE, AK 99510-1987

NAME \_\_\_\_\_ CALL SIGN \_\_\_\_\_

ADDRESS \_\_\_\_\_ LICENSE CLASS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_ LICENSE EXPIRATION \_\_\_\_\_

PHONES: HOME \_\_\_\_\_ BUSINESS \_\_\_\_\_ ARRL MEMBER? YES \_\_\_\_\_ NO \_\_\_\_\_ LIFE \_\_\_\_\_

YOUR STATION CAPABILITIES: HF \_\_\_\_\_ VHF \_\_\_\_\_ UHF \_\_\_\_\_ MOBILE HF \_\_\_\_\_ MOBILE VHF \_\_\_\_\_

AMSAT/OSCAR \_\_\_\_\_ RTTY \_\_\_\_\_ OTHER \_\_\_\_\_

Do you have other special interests in Amateur Radio? MICROPROCESSOR/DIGITAL \_\_\_\_\_

TRANSMITTER HUNTS \_\_\_\_\_ FIELD DAY \_\_\_\_\_ FLEA MARKET \_\_\_\_\_ OTHER \_\_\_\_\_

NOTE: Membership period is one year from date you pay. Grace period is thirty days after your due date.

DUES \$ 20.00 Regular member\$ 25.00 Family\$ 10.00 Student\$ 250.00 Life member (may be paid in installments)MEMBERSHIP APPLICATION

HE SAYS HELP MAY BE A LITTLE LATE, BUT IF IT'S ANY CONSOLATION, I'M HITTING THE REPEATER FULL QUIETING-



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**Silent Keys**

Robert (Bob) Farkas - KLTP became a Silent Key on 15th September 1997. Bob has been a member of AARC for many years.

James Ely - WL7AA became a Silent Key on 11th September 1997.

They will both be missed in the Ham Community. Our sympathy goes out to each of their families.

**Comment on Kissing Mirrors**

I received a phone call shortly after the last Newsletter went out. It was from Rosemary Hanrath KL7LA in Willow. The story, Kissing Mirrors, reminded her, that in April of 1946, her husband Del KL7JKW (SK) used that very method to stop the girls from trying out their lipstick on the walls of the High School in Frankfort, Michigan. Del was a custodian for awhile and then ended up doing maintenance for both the High School and Elementary School there. Rosemary, an Honorary AARC member, sounded real good and is doing well! Those of you that remember Rosemary should drop her a card to say hello.

Editor

**Club Jackets**

If you are interested in getting an AARC Jacket, see John Wolfe-AA0NN at the next Club meeting for details.

**For Sale**

These items were donated to the Club from the estate of Walt Burkewich - KL7IM, now a Silent Key!

**Kenwood TS-930S** HF Transceiver with Kenwood SP-930 Speaker \$900. **Yaesu FT-301D** HF Transceiver; FP-301 Power Supply/Speaker; YO-301 Monitor Scope; LL-301 Landliner Phone Patch and 301 Relay Box. \$300. Contact Harvey-NL7DK @ 333-4693 for details.

AARC Website

<http://nl7nc.akconnect.com/aarc.htm>